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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,627	10/22/2003	Kenneth M. Adams	2401.143-US	4035

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01/04/2007

EXAMINER

WEBB, SARAH K

ART UNIT

PAPER NUMBER

3731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS.	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/689,627

Applicant(s)

ADAMS, KENNETH M.

Examiner

Sarah K. Webb

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 17-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/18/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16, drawn to a cutting device, classified in class 606, subclass 170.
 - II. Claims 17-26, drawn to a method of fabricating a cutting instrument, classified in class 464, subclass 78.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the device could be manufactured by a different process.
3. During a telephone conversation with Robert Epstein on 12/15/06, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,755,731 to Grinberg in view of US Patent No. 6,053,922 to Krause et al., and further in view of US Patent No. 5,658,264 to Samson.

Grinberg discloses an angled tissue-cutting device with a bent outer tubular member (12) and a flexible, rotating inner member (14) with a cutter (30) at its distal end. The inner member includes a flexible region formed by slots in the wall of the shaft (column 3, lines 5-16). The inner member is also covered with a heat shrunk sleeve (74) (column 4, lines 1-12). Claim 1 does not necessarily require the sleeve to be "heat shrunk" over the inner member, since this is a product-by-process limitation. The claims only require the sleeve to have a close diametric fit. Nonetheless, Grinberg discloses a heat shrunk sleeve over the inner member.

Grinberg fails to form the slots in the inner tubular member to have a continuous helical cut. Krause discloses another tissue-cutting device that includes a flexible region formed by slots (32) in the wall of the shaft. Similar to Grinberg, Krause also teaches that the rotating shaft can be covered with a polymeric material (104) (column 10, lines 58-67). Krause teaches that the slots (32) should have a continuous helical configuration, as shown in Figure 1, as this forms a rotating shaft that has excellent flexibility while transmitting torque (column 4, lines 35-65). Figures 6H, 6I, 6J, and 6K illustrate alternate embodiments of a stepped helical pattern. Krause teaches that the angle of the helical cut can be 10 to 45 degrees (column 5, lines 50-52), which encompasses the limitation of claim 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the flexible region of the Grinberg device to have a continuous helical cut, as taught by Krause, in order to enhance the flexibility and torque transmission of the inner member.

Although Grinberg and Krause both disclose a polymeric sleeve over the inner member, they fail to teach the use of an adhesive to attach the sleeve to the inner member. Samson discloses another flexible shaft (202) with a helical configuration for a medical instrument. Samson teaches that a heat shrunk covering (206) over a helical shaft (202) should be applied over an adhesive layer (204) (column 9, lines 22-67), as this strong bond between the shaft and polymer layer allows thinner sleeves to be used, in turn producing a more flexible device (column 10, lines 8-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the sleeve of the modified Grinberg device with adhesive, as taught by Krause, as this allows thinner sleeves to be used which increases the flexibility of the shaft.

Regarding claim 7, the limitation "spray" is considered to be a product-by-process recitation and is not given patentable weight. The manner in which the adhesive is applied is irrelevant. Regarding claim 8, Samson teaches that it is known to use FEP as the heat shrunk material (column 9, line 67). It would have been obvious to form the modified Grinberg sleeve from FEP, as it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Regarding claim 9, Samson also teaches that various thicknesses for the sleeve are known and that it is within an ordinary level of skill in the art to determine a suitable thickness for a particular purpose (column 10, lines 22-26). Regarding claim 16, it would be obvious to form a second bend to adapt to a particular purpose, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah K. Webb whose telephone number is (571) 272-4706. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan T. Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SKW
12/19/06



JULIAN W. WOO
PRIMARY EXAMINER